DOCUMENT RESUME

ED 154 578 EC 110 330

AUTHOR Wusterbarth, Niles; Long, Nicholas J.
TITLE Social Interaction Among Maltreated Preschoolers in a Therapeutic Educational Setting.
INSTITUTION American Univ., Washington, D.C.
SPONS AGENCY Bureau of Education for the Handicapped (DHEW/OE), Washington, D.C. Research Projects Branch.
PUB DATE 77
GRANT G007700010
NOTE 123p.

EDRS PRICE MF-$0.83 HC-$6.01 Plus Postage.
DESCRIPTORS Behavior Change; *Child Abuse; *Contingency Management; Exceptional Child Research; *Interaction; *Peer Relationship; Preschool Education; Reinforcement

ABSTRACT

The study evaluated the effectiveness of positive social teacher approval contingent upon prosocial behavior by two abused preschoolers toward peers with similar background. Using a single subject ABAB research design, results supported the relationship between positive social teacher approval and increased positive student behavior, decreased negative behavior and increased prosocial behavior of peers toward Ss. Findings demonstrated the effectiveness of systematically applied behavioral principles in improving the social interaction for maltreated students and improving the quality and quantity of social interaction for the classroom as a whole. (CL)

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SOCIAL INTERACTION AMONG MALTREATED PRESCHOOLERS IN A THERAPEUTIC EDUCATIONAL SETTING

by

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1977

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US Office of Education
Bureau of Education for the Handicapped
Research Projects Branch

Grant Number G007700010

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SOCIAL INTERACTION AMONG MALTREATED PRESCHOOLERS IN A THERAPEUTIC EDUCATIONAL SETTING

by

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and
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ABSTRACT

Child abuse and neglect have acquired national prominence as social problems. Most professions have adopted their own perspectives on this problem. With few exceptions, educators have not. Teachers have the potential to detect maltreatment, assist in its intervention and modify its effects. The purpose of this study is to evaluate the effectiveness of positive social teacher approval contingent upon prosocial behavior by maltreated preschoolers toward peers with similar background, as a means of (1) increasing such positive behavior, (2) decreasing the subjects' negative behavior, and (3) indirectly increasing prosocial behavior of peers toward the subjects. An exhaustive review of the literature on child abuse and neglect is provided including sections on (1) normal social development theory, (2) manifestations of aggression, (3) existing professional approaches to child abuse and neglect, such as medical, psychiatric, social work, and public agency services, (4) description and etiology of abuse and neglect, (5) education as a social change agent, and (6) specific techniques for changing social interaction styles of children in a classroom setting. Because of the extremely deviant social development to which maltreated preschoolers

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are exposed, one cannot be certain of the impact of social reinforcers. Further, adult attention could be punishing. Treatment is complicated by the confusion and frustration teachers feel in response to these children's needs and disruptive behavior. This study addressed the problem with a single subject ABAB research design. Results supported all three relationships ($p<.002$). Behavior of a second subject was recorded in an AB design to test for generalizability. Results here supported the first two relationships as $p<.002$ and the third at $p<.05$. The treatment was observed to be extremely potent with abused young children. During intervention phases, their positive behavior increased dramatically, their negative behavior diminished and all peers exhibited higher levels of prosocial behavior toward the subjects. Levels of problem behavior observed during baseline were replicated as were the improved levels observed during the treatment. The second intervention was more effective than the first with fewer teacher reinforcements, for the primary subject. Thus the study demonstrated the effectiveness of systematically applied behavioral principles in improving not only the quality of social interaction of a maltreated target child, but also of improving the quality and quantity of social interaction in an entire classroom.

Foreword

"In the little world in which children have their existence, whosoever brings them up, there is nothing so finely perceived and so finely felt, as injustice."

Charles Dickens' comments in Great Expectations apply to the maltreated child. One of the most destructive, debilitating and stifling injustices our society inflicts on children is the violent battering and crippling neglect which exists in so many homes. Such children have no basis on which to expect anyone to care for them, nor on which to extend themselves in a caring way to others. Their social behavior is highly deviant. They become severely emotionally disturbed youngsters, later the resentful, angry misfits in school and finally the next generation of battering and neglecting parents.

This study is built around two objectives. In order to remediate deviant social development and skills, the study is first designed to determine the applied effectiveness in a therapeutic nursery school of positive adult reinforcement to increase prosocial behavior and decrease antisocial behavior in abused children. The significance and validity of this issue are discussed in chapters I and II.

Since the existence, causes and treatment methodologies of abuse and neglect are not widely publicized, the second project objective is to disseminate information regarding

(a) the lack of educational involvement and commitment in this area, (b) the incidence and etiology of child maltreatment, and (c) one effective teaching technique applicable to this group of severely emotionally disturbed children.

Both objectives have been met. Chapters IV and V present the findings pertinent to the first objective. Publication of this final report in ERIC and hopefully in a professional journal which is reviewing this paper constitutes achieving the second objective.

Acknowledgments

I am extremely grateful to Dr. Nicholas J. Long for his personal and professional inspiration, rich observations, penetrating insight and enthusiastic commitment to this study and all that preceded it. Dr. Long's advice and compassionate understanding of children, students and professionals have had a great impact on my life. I sincerely hope that this paper marks the beginning of a career which will be judged worthy of all his efforts.

I further wish to acknowledge the valuable services of Dr. Phillip S. Strain. Having opened new horizons for me in work with problem children, he persevered on this project for months after he left the Washington, D.C. area. Dr. Strain's clarity of thought, singleness of purpose and ability to sift through the many aspects of deviant behavior in order to extract meaning, insight and direction were heavily relied upon throughout the conduct of this research.

Gratitude is extended to Dr. Franz E. Huber, as well, for his support, advice and ability to continually extend the application of thoughts, techniques and conclusions into new areas and broader perspectives.

I am indebted to Dr. Vincent Fontana and Dr. Carol Weissbrod for their helpful remarks at the outset of this study, to Mrs. Rose Alpher and the staff of the Family Center for their cooperation and support, to Mrs. Marcela Barham

and Ms. Margarita Ashwell for their motivated and accurate collection of data, and to Mrs. Mary-Alice Gray for her expeditious typing of the final copy of this study.

I was privileged and honored to receive notification that other colleagues judged this research to be sufficiently worthy of a federally funded grant from the U.S. Office of Education, Bureau of Education for the Handicapped (USOE/BEH/RPB Grant Number G007700010). This was indeed an elating and rewarding experience. Dr. James Hamilton's guidance was most helpful and clearly strengthened the project.

Similarly, the support and guidance of the American University School of Education faculty during the past three years is respectfully and appreciatively acknowledged. Through their efforts I have been provided with the depth and breadth of knowledge and practical experience which was necessary to complete this research as a doctoral dissertation and, hopefully, to launch my career working with handicapped children.

Finally, I offer the deepest, fondest appreciation to my family for confidently assuming the risks involved with departing a good job to commence full time doctoral studies in a new field, and for listening, understanding, encouraging, believing and caring.

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CHAPTER I: The Problem and Its Setting

Introduction

Within the past decade, child abuse and neglect have been uncovered as widespread phenomena in our society. Professional groups such as physicians, pediatricians, psychiatrists, social workers, lawyers, legislators and public servants have responded with various treatment programs and techniques in an attempt to discover the etiology, manifestations, and promising intervention strategies for the alleviation and prevention of this problem. However, little seems to have been done on any level from an educational perspective.

Statement of the Problem

The purpose of this study was to evaluate the effectiveness of positive, social teacher approval contingent upon prosocial behavior by abused and/or neglected preschoolers toward peers with similar background or a teacher, as a means of increasing such behavior in a therapeutic educational setting.

Significance of this Study

Considerable research has been done in the area of child abuse and neglect by professionals other than educators. In areas other than abuse, educators have validated numerous theories, methodologies and teaching techniques. They have probed deviance of many types and have admirably

extended their professional responsibility to include early childhood learning. For whatever reasons, educators have ignored specifically addressing the preschooler who has been physically and emotionally abused, battered, isolated, neglected and generally maltreated. While many of the nation's young children have been maltreated, educators have simply grouped these cases with other handicapping conditions when such cases have been detected. More often educators have ignored the state of these children and denied their suffering. When they have responded to these children's needs, educators have done so based more on vague assumptions and hunches, rather than on a thorough awareness of the individual child's social, emotional and cognitive development and deficits. The need for educational research in this area is urgent, especially as social agencies begin to identify more cases needy of educational help.

The classroom is a readily available, controlled setting through which significant changes can be introduced and reinforced as children develop. Further, it has long been recognized as a microcosm of society and therefore plays a key role in the socialization of youth. The variety of teaching techniques and learning experiences available make this classroom setting highly flexible and capable of potent, individualized intervention. Yet, educators must know which techniques and experiences are, in fact, most helpful and yield the best results.

Of the many and varied educational implications of child abuse and neglect, one area which should be translated into reliable, effective teaching strategies of intervention and learning is the child's mode and quality of social interaction. Positive, social reinforcement, praise and approval have long been recognized as reliable, effective techniques for increasing the frequency of target behaviors. Yet these children have consistently been the target of highly deviant and unusually stressful social experiences. Home life for them carries with it a long series of potent, aversive, very painful and unforgetable scars, both physical and psychological. Unlike most normal preschoolers, they have not experienced a highly predictable, trusting, caring, loving world of people. Many have often remained isolated from peers while others relate poorly and inappropriately to peers because of this social deficit.

At this point no one knows what the practical implications are for this type of deviant development. One might certainly ask if these children respond socially as do other children (Kline & Hopper, 1975). They most likely would be conditioned to avoid adults and perceive them as hostile, uncaring, and unpredictable. They probably would be very unresponsive, withdrawn and evasive, if not oppositional and fearful of overtures made by a teacher. One might further guess that they would respond with either high levels of aggression or withdrawal depending on whether they

were abused or neglected. In any case, these presumptions require research and documentation. Knowing how these children respond to social and school situations, a teacher can then more comfortably and confidently adapt her style and classroom structure to the unique needs of these children.

Hypotheses

The following three directional hypotheses were tested in this study.

Hypothesis 1

There is a significant increase in appropriate, prosocial interactive behavior displayed by abused and/or neglected preschoolers toward peers with similar background or a teacher when such behavior is contingently reinforced, socially and positively by a teacher.

Hypothesis 2

There is a significant decrease in inappropriate, antisocial, isolate behavior displayed by abused and/or neglected preschoolers when appropriate, prosocial, interactive behavior by such children toward peers with a similar background or a teacher is contingently reinforced, positively and socially by a teacher.

Hypothesis 3

There is a significant increase in appropriate, prosocial, interactive behavior displayed by abused and/or neglected preschoolers toward a subject peer with a similar background, when only that subject peer is reinforced,

socially and positively by a teacher, for appropriate, prosocial, interactive behavior.

Delimitations

This study was concerned with two preschool subjects from the Rose School Family Center model child abuse project in Washington, D.C. An ABAB research design was utilized with the primary subject so that he served as his own control. An AB research design was utilized with a secondary subject to assess the generalizability of treatment effects to other maltreated children. While accepted as established research techniques (Browning & Stover, 1971; Tuckman, 1972), these two factors, two subjects and the research design, both clearly have the potential for limiting the generalizability of any findings.

This delimitation was minimized by selecting subjects who seemed to demonstrate the social skills and behaviors typical of this group of children and by providing a thorough description of the children and their social and family history. Further, it was hoped that significant behavioral differences would appear between each of the four conditions taken separately and sequentially, and that similar behavior would appear in the two A conditions and also in the two B conditions. Finally, it was hoped that results achieved with the primary subject would be replicated with the secondary subject.

A common delimitation with research in its formative stages is the uncertainty of the results. An attempt to minimize this problem was made by running an informal pilot study. Data from this "dry run" seemed to confirm the above hypotheses. Pilot study data are presented at Appendix B.

Assumptions

One basic assumption in dealing with child maltreatment is that it is not bizarre or "crazy" behavior, but one manifestation of adult aggression. Most people have learned to express their aggression in a fairly well socialized and acceptable fashion and have learned the limits of society's tolerances. They are able to function within these limits; others have not. Some of those who have not turn their aggression on themselves, as in suicide or masochism. Others turn to their spouses as in wife beating. Still others take out their aggression on their children.

Furthermore, in most cases of child maltreatment there is usually some causal component relating to the parents' lack of appropriate and effective parenting skills. As Fontana (1973b) says, giving birth to a child does not automatically make one a good parent. Quite the contrary, the increasing incidence of abuse might lead one to suspect that giving birth in this culture at this time might bring to the family more difficult and unexpected problems than previous generations of parents were required to face.

Both of these assumptions lead to an important third assumption relating to treatment and prognosis. Social history and development of both parents and children are important causal factors in determining their present skills, attitudes, tolerances, behaviors and feelings. At the same time, social history and development are dynamic concepts which remain open to change, adjustment and adaptation. Both parent and child therefore have the potential for changing the way they think, act and feel and for altering their image and expectations of themselves, eachother and others.

More specifically, the abused and neglected child is assumed to remain capable of deciphering social cues, discriminating subtle differences in various social settings and responding in new and different ways to potent stimuli and reinforcers, even when those stimuli and reinforcers are novel or inconsistent with the child's past experiences and present expectations.

One assumption is that any measurable changes in behavior result from the treatment and design, rather than from some unknown, extraneous coincident events. During the data collecting period daily checks were made with the parent workers and teachers to learn of any related significant social events occurring outside the school. Further, by collecting data at several points in each of the four phases of the design, the impact of such influences should have been minimized.

This design further assumes that a child needs much more time to attain a maintenance level of new behavior patterns than he does to acquire them. If he learns too quickly he might begin generalizing his responses during the second baseline period, rather than reverting to his old response patterns.

In terms of the previous section's delimitations, an important assumption is made that, to some unknown extent, if this particular research design works on these two children it will have some relevance to other children with similar backgrounds, skills and deficits, and also that similar treatment effects will generalize to both the target children and other children.

Definitions

The following terms have been extracted from my hypotheses for definition.

Appropriate, Prosocial Behavior:

While all classes of interactive behavior will be recorded, only certain types will be targeted. Using a behavioral measurement system developed by Strain and others (Strain & Timm, 1974; Strain, Shores & Kerr, 1976), interactive behaviors were recorded along four parameters. They were categorized first as motor-gestural or vocal-verbal; then topographically as positive or negative, and also as initiated or responded; and finally by participants: subject, peer, teacher. These categories are defined in the above two citations as follows.

Motor-Gestural: all movements which result in the child's body coming into direct contact with the body of another child; which involve extending limbs toward another child; or which involve bodily contact with an object which is being held or manipulated by another child.

Positive Motor-Gestural: touch with hand(s); hug; hold hands; kiss; wave; all cooperative behaviors related to sharing a toy or other object.

Negative Motor-Gestural: Punch; kick; pinch; butt with head; shoving; grabbing an object or material from another; destroying or altering a construction of another child against his wishes.

Initiated Motor-Gestural: all motor-gestural behaviors which are emitted at least 3 seconds before or after another child's behavior.

Responded Motor-Gestural: all motor-gestural behaviors which are emitted within 3 seconds following another child's behavior.

Vocal-Verbal: all vocalizations made while the child is directly facing another child within a radius of 0.9m; all vocalizations whose content or accompanying movements indicate that the child is addressing another child anywhere in the room or area.

Positive Vocal-Verbal: all vocalizations toward another child excluding shouts, screams, cries, whines or other utterances whose content indicates rejecting, oppositional behavior.

Negative Vocal-Verbal: shouts, screams, cries, whines or other utterances whose content indicates rejecting, oppositional behavior.

Initiated Vocal-Verbal: all vocalizations and utterances emitted at least 3 seconds before or after another child's behavior.

Responded Vocal-Verbal: all vocalizations and utterances emitted within 3 seconds after another child's behavior.

Inappropriate, Antisocial, Isolate Behavior:

In addition to the above "negative" behaviors, included in this category are all ignored behaviors and overtures; i.e., an initiated social behavior to which there is no response by the recipient child. A further indirect measure of isolate behavior was made by comparing changes in the frequency of initiating behaviors.

Severely Abused and/or Neglected Preschooler:

By definition, and as a result in intake and screening procedures, all children enrolled in the therapeutic setting must meet this definition. They are in some way battered, mistreated in an excessive manner, or ignored and not provided a level of care commonly observed throughout the culture. This definition will be dealt with in greater detail in the next chapter.

Social, Positive Approval from Teacher:

This term includes a composite of behaviors: (a) verbal words of praise and approval, (b) specific verbalization of

those behaviors of the targeted child which are being praised, (c) specific verbalization of real or potential positive, social consequences the child may experience as a result of the target behavior, (d) face to face communication, i.e., the teacher squats near the child and talks near the front of the child's face, and (e) physical contact, e.g., pat on the back or head.

Therapeutic Educational Setting:

This term refers exclusively to the Rose School Family Center for the treatment and prevention of child abuse and neglect. This is where the study was conducted. It is located in Washington, D.C.

CHAPTER II: Review of the Literature

Overview

The purpose of this study was to determine if a teacher's positive, social approval and praise of an abused child's prosocial behaviors toward an abused peer will increase those behaviors. To better understand the issues on which this research is based and the implications of dealing with the problem of child abuse and neglect, it is helpful to review the literature on this topic.

Since the early research on the incidence of parents battering little children (Gil, 1967a, 1967b, 1970; Kempe & Helfer, 1972), this phenomenon has been detected throughout all subcultures of our society. Various treatment strategies have been proposed, deriving primarily from the professional background of the author, e.g., pediatrics, hospital emergency room procedures, social work.

The relative lack of research by educators and for educators is glaring. As detection of cases has improved, there has been a rise in the number of treatment programs for abusive families. Yet little, if anything, has been written for teachers to describe objectively first, how these children differ from other normal or handicapped children in their classroom skills, and second, what teaching strategies and techniques are most appropriate for alleviating deviant or abnormal development in each of the cognitive, motor and affective domains.

To provide an informed background on how these children differ in their development and how best to treat them, a review of existing social development theory, followed by a discussion of the various manifestations of aggression will be presented. From this review, an attempt will be made to consolidate and integrate the various existing approaches to child abuse and neglect, from the earliest approaches, to the medical model, psychiatric model, social work model, services offered by public agencies, and finally the more multidisciplinary approaches. Building upon this, a description of the etiology of abuse and neglect will be provided. Finally a section on the potency of education as an agent of social change will be discussed in general, then in terms of specific techniques which are related to the questions raised in this paper, together with justification from educational researchers for the methodology, design and instruments employed in this study.

Social Development Theory

From birth, a child's survival is dependent upon social interaction. The severe, long lasting, detrimental consequences of extreme maternal and social deprivation have been well documented with children (Goldfarb, 1944, 1945; Lowrey, 1940; Skeels, 1966; Spitz, 1945, 1946), and more dramatically in animal research (Harlow, 1958, 1961, 1962; Palmer, 1969).

While a newborn infant's behaviors are primarily respondent or reflexive in nature and derived from internal states of stress, discomfort or need, within a few months the infant has clearly begun to behave as a more manipulative, operant, social being (Bell & Ainsworth, 1972; Rheingold, 1969). Social experiences thus begin to crystallize early into patterns of expectancy, patterns of consistency and delay of gratification, patterns reflecting the variety and frequency of social interaction, both solicited and unsolicited, and particularly into patterns reflecting the nature of the interaction, be it aversive, tense, brief, nonsatisfying, spontaneous, warm nurturing, soothing, and so on.

Freud (Fine, 1973; Longstreth, 1968) developed his theories along these lines, to an extent. While he emphasized internal individual development of love, sexuality, feelings, identification and value systems, he also stressed the importance of social structure. The mother functions in several roles. Her nurturant role is assumed to influence the child's sense of security, love and trust. Another is a repressive role which helps the child control his instinctual drives to obtain mutually satisfying interactions with others.

Taken together, the prevalence in the family of nurturant love or nonnurturant hate determines whether these social exchanges will be gratifying or frustrating. Frustrating

early experiences inexorably become crystallized inner states and result in a fixation and a "psychologically sick" person with undesirable, dysfunctional personality characteristics related to the stage of fixation.

In a similarly pessimistic and parallel fashion, early education theorists such as Rousseau (1712-1778), Pestalozzi (1746-1827) and Froebel (1782-1852) presumed that the organism experiences a "natural unfoldment" or natural process of social growth and development when exposed to a "good" or "free" environment. A "bad" social environment corrupts this innate, natural process, impedes growth and causes abnormal development (Bigge, 1976).

Locke's (1632-1704) earlier "tabula rasa" concept (Bigge, 1976) emphasized in a broader fashion the pervasive impact of external or environmental influences on the blank, open, passive mind. Two hundred years later these ideas began to be redefined and expanded by many theorists and eventually, in this century, developed into a now traditional behavioristic school of learning and psychology. Wundt (1832-1920) established the first research lab in a field which he termed physiological-psychology (Bigge, 1976; Hall, 1912; Woodworth, 1948). Woodworth (1869-1962) followed with his work in experimental psychology (Woodworth, 1948) and Thorndike (1874-1949) developed his theory of connectionism (Hergenhahn, 1972; Thorndike, 1914; Woodworth, 1948).

Watson (1878-1958) greatly refined these ideas under the label of behaviorism as did Hull (1884-1952) using the term connectionism-reinforcement and Guthrie's (1886-1959) contiguity theory (Woodworth, 1948). Presently, Gagne has integrated many of these forces into a behavioristic-eclectic psychology (bigge, 1976). To most people however, the recent and current work of B. F. Skinner remains the most representative of traditional behavioristic dogma (Ferster & Skinner, 1957; Holland & Skinner, 1961; Skinner, 1938, 1948, 1953, 1968, 1969, 1971, 1972, 1974).

In total, these writers emphasize determinism, past histories of reinforcement, the conditioning process, and the concepts of contiguity, association, contingency, perception, extinction and discrimination. To the behaviorists, all of these points are considered fundamental to the understanding of any acquired behavior.

These writers describe a child's social growth as a series of events in which the participating people offer various patterns of contingent reinforcement to the child both in response to his preceding behaviors and as an influence on his future behaviors.

Social learning theorists (Bandura, 1969a, 1969b) have built upon this base by adding an internal processing, associating or mediating stage between the environmental stimulus and the observable response behavior. They emphasize the

direct tie between observation of social exchanges and the acquisition, performance and maintenance of new behaviors. This tie is considered to be mediated internally. Aronfreed (1969) discussed cognitive structure, while Stotland discussed the need for cognitive consistency among a child's self-image, peer behaviors, standards and behaviors and those of the family (Stotland & Hillmer, 1962; Stotland & Patchen, 1961; Stotland, Zander & Natsoulas, 1961). Both concepts are similar to Bandura's.

Others also specifically tie the child's social development to his past and present environment. Inkeles (1969) has described socialization as the total history of the child's past experiences, or the process of acquiring an individualized personal system of properties and behaviors which conform and adapt to the setting. McCandless (1969) attributes the outcome of a child's socialization to various forces: parents, family social structure, peers, school, religion, organizations, urban or rural environment, social class and the media of mass communication. These forces function to facilitate learning, to reinforce or punish, to determine one's style of expression in various settings, and to model behaviors and expected consequences.

One of the oldest, most effective and widely used positive reinforcers is simple praise (Bandura, 1969a; Mahoney, 1974; Meichenbaum, 1974). Farson (1963) adds that not only does praise function as a reward, but also as a motivator to

behave in a certain manner as a technique to establish and influence good relations with others. The perceived credibility, status and empathy of the person offering the praise are factors influencing its effectiveness. Cossairt, Hall and Hopkins (1973) found that a target behavior which the subject was able to perform could greatly increase in frequency by contingent administration of specific verbal praise.

While praise is established as an effective reinforcer, it may be too effective for some purposes. In ABAB studies the design depends on the reinforcer being effective enough to produce changes in behavior yet weak enough to permit the child to revert to old patterns of behavioral responses when the treatment is removed. Replication of both levels constitutes the control. This problem has been addressed in terms of distinct processes (Bandura, 1969a, 1969b; Mahoney, 1974).

Acquisition refers to the initial learning process of adding new, altered or different behaviors to one's repertoire. A distinction is further made within the group of acquired behaviors in terms of which ones are obviously or observably performed and which ones are not, assuming a behavior can be learned without ever being actively performed. Two different processes are maintenance and generalization. For example, a treatment may be sufficiently potent to elicit the acquisition and performance of new behaviors, yet sufficiently

brief for the child to remain below maintenance and generalization levels of learning, where he would be responding with his new behaviors for reasons unrelated to the treatment.

A final group of social development research pertains to children's play. Parten and Newhall (1943) describe a sequential development of preschool play styles, from solitary to parallel and finally cooperative. Solitary play occurs in infancy and very early childhood. The child plays in an isolated manner, even if close to another child. Little imitation or interaction occurs. Later, in parallel play the child notices others, copies their games, motions and activities, involves himself in the same type of play, yet remains fairly independent with minimal interaction. Finally, the preschooler develops a cooperative play style, where he interacts frequently, intensely and fully with peers in well organized games, fantasied stories, role playing and so on.

A related issue has been researched at the Family Center by Strain, Kerr and Alpher (in press). A child's most frequent response to positive social initiations by peers was positive social behavior. Likewise, negative social initiations by peers most often elicited negative social behavior from the subject. No attempt was made to demonstrate the same relationship in the opposite direction, from the peers to the subject.

There are several specific points from this review of social development theory which are worth summarizing.

First, past experiences do effect present behaviors, expectations, emotions and capacities. Second, the impact of these past experiences is not rigid, but rather remains dynamic and alterable as a result of new experiences. Further, novel expectations and attitudes may be developed. Third, such change is facilitated by the child's ability to continually discriminate different social cues, particularly in terms of the reinforcing person and the setting. Fourth, parent and child remain social beings, aware of and responsive to interactions with those around them. Fifth, social praise is a potent reinforcer for changing behavior. Sixth, there is a practical distinction between the acquisition of new behaviors, their maintenance and their generalization. Finally, abused children tend to relate reciprocally to each other in terms of positive or negative social behaviors.

Manifestations of Aggression

Shifting from a discussion of normal behaviors and development to one of more deviant syndromes is becoming an increasingly ambiguous undertaking. In surveying the status of mental health programs a decade ago, Cowen, Gardner and Zax (1967, chap. 1) pointed out a then established perspective that all behaviors, normal and abnormal, were considered to lie on a continuum, rather than in disjointed sets. Further, any single behavior varies in its function and degree of appropriateness across time and situations. Thus the

dissection of this continuum into clear segments is nearly impossible. More recently, Long, Morse and Newman (1976, pp. 1-2) have added that "each of us contains the whole range of emotional health and disease within himself. ...When a person's initial feeling of rage or apathy becomes destructive of himself or of others, his behavior can legitimately be called disturbed."

A vast array of such disturbed behavior has persistently imposed itself upon our everyday lives in the form of aggression. In its broadest sense, aggression is one of our nation's greatest problems. There is a large component of destructive aggression in all urban crimes of violence, in the race riots of the sixties, in vandalism, in the widespread use of hard drugs among our young, in suicide and in wife beating. When life's problems become overwhelming one experiences a tremendous degree of frustration, anxiety and inability to function as he normally does. These feelings continue to mushroom unless the problems are alleviated. Without relief or help they boil over into aggressive or neglectful acts, which only serve to compound the problem.

Seen in this light, child abuse and neglect are no more bizarre nor deviant than the various other manifestations of aggression we continually witness, but is rather simply another form of violence (Gil, 1971b). The manner in which this vicious cycle is repeated and often spirals into such abusive

and neglectful acts toward children will be discussed in a later section on etiology.

Existent Approaches to Child Abuse and Neglect

Before attempting to trace the various causes and antecedents of child abuse and neglect, a review of existent approaches which attempt to deal with this problem is presented.

Earliest Approaches

While the earliest published reports on child abuse and neglect treatment included professional components similar to what most programs now have and will likely retain, they were proposed in a very fragmented simplistic fashion. Boardman (1963) appealed to all communities and professionals dealing with families to address this problem and establish more fully and clearly the inherent rights of children as well as the obligations of parents. While broad in scope her emphasis was on the parent's self concept and family role.

Young (1964) was more specific. She stressed the role of the social worker operating together with the judiciary in identifying, alleviating and preventing abuse. This very detailed and thorough study profiled abusive and neglecting families across all social classes, in both urban and rural areas, and for periods of up to 20 years through case records. Factors addressed were parents' backgrounds, their adaptation to society and the sources of anxiety, stress and frustration

which accumulate until parents injure their children.

Medicine and Pediatrics

As a result of their work in hospitals and emergency rooms, physicians were among the first professionals to witness the extent and severity of child abuse and neglect. During the early 1940's, more explicit differential diagnosis was made possible, particularly with the use of x-ray equipment (Caffey, 1946a, 1946b, 1950, 1967, 1972; Connell, 1963; Elmer, 1963; Fontana, Donovan & Wong, 1963; Fontana, 1964, 1966, 1968; Silverman, 1953; Woolley & Evans, 1955).

Physicians at the Children's Hospital of Washington, D.C. have long been involved in similar research. Silver, Dublin and Lourie (1969) address the marginal cases and the physician's own difficulties in facing the reality of child beating and deciding whether to refer these marginal cases by diagnosing suspected abuse.

By 1966 the problem had gained sufficient exposure for a group of pediatricians, acting through the American Academy of Pediatrics, to advocate (a) legislation to require physicians to report suspected cases, immune from law suits, (b) funding and staffing of agencies responsible for dealing with cases, (c) thorough and prompt evaluation, (d) greater protection for children, and (e) establishment of state central registries of cases (Forsyth, 1966). This group later expanded its recommendations to include (a) development and

use of predictive measures to identify high risk parents and families, (b) establishment of easily accessible family crisis treatment programs, (c) establishment of diagnostic and treatment centers, (d) expanded responsibility for identification, treatment, prevention and public education, (e) integration of day care centers into groups dealing with abusive and neglectful parents, and (f) greater utilization of lay therapists and community volunteers to combat the growing problem (Forsyth, 1972).

Hospital involvement has expanded drastically since the 1960's and is now established in most communities as a primary force for child advocacy dealing with this problem (Joyner, 1973). This role has become specialized in various ways. An indirect benefit has been the discovery of various forms of skeletal and brain damage resulting from shaking (Caffey, 1972). Baron (1970) differentiated the neurological manifestations of battering from other causes of neurological impairment, which for a long time were not apparent. Related specialists have begun to research the effects of abuse in their fields. Zadnik (1973) integrated visual impairments with other physicians' efforts as did O'Toole (1974) for speech and hearing clinicians.

Psychiatry and Psychoanalysis

As most cases of abuse and neglect usually involve some severe stress reaction, maladjustment or coping inadequacy by

the parent, these professions have become extensively involved in the treatment aspects of the parents. Fischhoff (1971) conducted an extensive and systematic psychiatric case review of 12 neglecting mothers. He found that almost all suffered a character disorder, had a disturbed childhood, performed daily routines poorly, had a need to be cared for and relied heavily on denial, projection and isolation. Burland (1973) found a high incidence of unmet dependency needs of both parent and child along with other ego function considerations relevant to treatment. D'Ambrosio (1970) presented a case narrative as a psychoanalyst and emphasized the social withdrawal consequences of children exposed to battering and neglect by mentally ill parents.

These two professions have been heavily imposed upon in the last decade or two by critics advocating more thorough evaluation of clinical effectiveness of analysis and more expeditious treatment of problems (Cowen et al., 1967). These critics, along with many advocates for the numerous derivative and novel therapeutic approaches, have largely succeeded in these two aims within many areas of mental health.

Social Work

This is a profession which has also been involved for decades with helping abusive and neglecting parents adapt their skills, tolerances and orientations to their sometimes stressful, sometimes uninformed circumstances. One of the

most renowned advocates and experts of the social work profession involved in this area is Polansky (1976; Polansky, Borgman & DeSaix, 1972; Polansky, Hally & Polansky, 1975; Polansky, Hally, Lewis & VanWormer, 1975). Polansky developed a Childhood Level of Living Scale based on the dimensions of child care which he found to most often correlate with cases of neglect. He combined this formulation of critical incident impact to develop a fairly reliable predictive measure and effective treatment program. He has written and coauthored dozens of books, articles and research studies.

Other social work researchers have formulated similar sociocultural models to describe the development and causes of abuse and neglect. Giovannoni (1971) proposed that maltreatment of children by parents was primarily a reflection of various aversive or overwhelming societal forces imposing upon the family structure. Further, unlike most other studies of incidence, she found abuse correlated with low income families because of the direct problems of poverty and the indirect deficits of family support. To her then, the society was emphasized as the cause of mistreatment.

Similarly, Light (1973) stressed the need for appropriate social policies designed to alleviate the conditions which spawn abuse and neglect. He proposed several such alternative policies and emphasized the role of the media in educating the public and participating in the advertisement of available

helping programs.

Public Agencies

A century ago the case of Mary Ellen received national attention. She suffered regular, severe beatings and from malnutrition at the hands of her parents. When church workers sought help there was no agency legally authorized to intervene. Finally they turned to the Society for the Prevention of Cruelty to Animals who successfully argued that Mary Ellen was a member of the animal kingdom and had her removed from her parents. Subsequently, numerous organizations, both public and private, were established to aid these children and the first protective legislation was passed (Martin, 1973).

Numerous public agencies with somewhat more bureaucratic or legalistic orientations than the social work profession, have become more explicitly involved in the treatment of abuse and neglect cases. Some, such as adoption agencies and foster home programs have long been involved, though without the explicit acknowledgement that such cases form a syndrome of their own.

Others, such as public assistance and welfare departments, have been similarly involved with parents seeking financial aid, but have considerably expanded their roles by focusing on the children in these families and others where abuse or neglect is suspected for some reason. Fraser (1974) has emphasized the importance of expanded interagency communication

and cooperation. Sanders (1972) discussed the related difficulties of communications between these agencies and the problem parents, particularly at the initiation of agency involvement.

Katz (1971) wrote from a legal, judicial perspective in attempting to deal with the question of state agency intrusion into a family's private life, the rights and welfare of the child and that of the parents. He outlines criteria and detection procedures related to a family's failure to promote socially desirable goals, a direction which certainly seems to require a much more detailed and thorough legal evaluation.

A lawyer in the Philadelphia District Attorney's office (Richette, 1969) wrote from a comparable background while working with older children who had become delinquent and then were found to have been previously neglected or abused. She further assailed the juvenile justice system, community services and public school systems for their negligent, inadequate, ineffective and uncaring performance in dealing with these children.

Johnson (1974) conducted a similar study evaluating alternative relationships between the juvenile courts and public welfare agencies. Her emphasis was placed more heavily on the deficiencies and ambiguity regarding the definition of abuse and neglect and legal confusion over the right of agencies to intrude. These problems create further conflict

over the status of a case and its ultimate disposition.

As mentioned in earlier references, many representatives of the legal profession have written, researched and made recommendations regarding child abuse and neglect. Those mentioned above focused on other components of the public sector. Kelley (1973) placed ultimate responsibility for determination of the child's welfare in the hands of the judge. Mnookin (9173) however, asserts that judges already have unwarranted discretionary power over the custody of the child and recommends greater restriction of the judge's alternatives in order to protect the welfare of the child and the rights of the parents.

Since police frequently become involved with cases processed through the courts and other public agencies, this group has also attempted to develop a more systematic, helpful approach. Flammang (1970), the International Association of Chiefs of Police (1974, 1975) and Swanson (1961) have all emphasized the police officer's primary responsibility in abuse and neglect cases is the protection of the child. They have helpfully clarified considerations of the psychological needs of the family, timing, expected reactions of the parent and the child, setting, the officer's rapport with the child and have provided specific indicators of neglect and abuse together with lists of questions and answers to aid the officer in confronting the family and making a

decision. Kempe and Helfer (1972) have also included the role of the police officer along with the roles and involvements of other public sector representatives.

Numerous pieces of legislation are constantly being drafted, refined and enacted these days in a concerted, nation-wide effort to curb the growth of this epidemic-like problem (Blatt, 1973; Cameron, 1973; Education Commission of the States, 1973; Isaacs, 1973). These proposals and others are fairly similar in advocating (a) immunity from lawsuit for the person reporting a suspected case, (b) penalizing professionals who fail to report a suspected case, (c) overriding traditional patient-physician confidentiality regarding the withholding of information on a suspected case, (d) appointment in each case of a child advocate lawyer, (e) medical examination of a child suspected of being abused or neglected, (f) the acceptance of less stringent evidence to declare an abusive or neglectful act(s), (g) that neglect be immediately declared at the detection of heavy drug use by the parents, (h) establishment of state central registries, (i) development of parent support and treatment programs, (j) continued expansion of communications and coordination of efforts among various public agencies, and (k) greatly expanded funding and staffing of public agencies which serve these families. While some of the above approaches taken by public agencies in their attempts to deal with this problem involve

the coordination of several agencies in each case, some programs seem somehow to transcend others, perhaps because they represent the efforts of nationally prominent spokesmen.

Multidiscipline Approaches

While many of the studies, models and recommendations discussed throughout this section thus far similarly involve coordinated efforts, a selected few are more broad in scope and less biased toward any one profession. Their founders have also spearheaded the movement to arouse public awareness and secure governmental response to this problem area. They have integrated various schools of thought together with theory and practice. The first National Conference on Child Abuse (Brown, 1974) was both a response to the need for greater public response as well as an act intended to spawn newly coordinated programs. The conference called for efforts geared toward identification, legislation, prevention, rehabilitation, education and research.

Gil was one of the earliest researchers to become associated with studies of incidence of abuse and neglect. He conducted a very extensive nation-wide study from 1965 to 1969 (Gil, 1967, 1970; Gil, Noble, Brimlow, Deeley, Olsen, Boswell & Neugarten, 1967), which assessed incidence, public knowledge of governmental programs, attitudes toward abuse, predispositions toward abuse, opinions on treatment, and care of the abused child. This study was primarily epidemiologic,

social and cultural, rather than medical, legal, psychological or clinical. He therefore emphasized cultural and social forces which lead to abuse and neglect.

However, Gil soon expanded his perspective. He became involved in the development of a public treatment program in Boston (Gil, 1975) by integrating the services of hospitals, clinics, welfare agencies, the police and the courts. Simultaneously he expounded upon the political, psychological and institutional sources of abuse and neglect. Gil (1971a, 1971b) singles out our cultural attitude toward aggression and violence as additional significant predisposing factors toward abuse.

While Gil is affiliated with a university program on social policy at Brandeis University, a different group in Denver is primarily medical in their background. Helfer and Kempe (1968, 1974; Kempe & Helfer, 1972) have translated much of their earlier medical, psychiatric and social work efforts into widely publicized and responsive model programs. At the same time they integrated and advanced medical detection, diagnosis and treatment considerations. Finally they extensively addressed numerous legal issues pertaining to the involvement of physicians, the police and their role, the court's role and needed legislation. A wide variety of treatment components were unified onto a pragmatic "degree of involvement continuum." This and many other practical ideas

and suggestions for everyone working in this area make these references fundamental and basic texts. Helfer (1975) updated his review of the medical profession's involvement and extended earlier formulations regarding the etiology of battering, a topic which will be discussed in a later section.

The final selected contributor to a broad, multifaceted approach is Fontana. While coming from a medical background also, he writes in a more touching and emotional style than those mentioned above. As director of the New York Foundling Hospital and chairman of the New York City Mayor's Task Force on Child Abuse, he has become recognized as a national leader in his field and has published widely (1971, 1973a), with his latest book (1973b) on the best seller list in paperback. One of his most effective endeavors is the mobilization of the local governments into action in order to save the lives and spirits of the many thousands of children subjected to battering throughout our social structure. No other skill is more needed at this time.

One additional source which impressively summarized the divergent theories and treatment approaches in this field was prepared by Parke and Collmer (1975). These authors have not however translated their analysis into an existing treatment program, but have limited themselves to reviewing other programs in a very thorough manner.

They group the various approaches roughly into psychiatric, sociological and behavioristic schools. They perceive abuse as a manifestation of aggression. They are in agreement with most others in stating that the crisis is only a precipitating event in an escalating series of crises, during which the parents often parallel this escalation in their punishment behavior, from low levels to more severe levels. They finally prescribe behavioristic treatment to change the child's behavior, the parents' disciplinary behavior, their expression of anger, and to increase the parents' social contacts. They, too, advocate efforts to heighten public awareness of the deleterious effects of abuse.

Etiology

A wide variety of explanations have been proposed above to explain why parents beat their children. Many of these merit more detailed consideration. In searching for causality, one methodological approach suited for the social sciences is to begin with a description of the problem, then to search for correlates and finally attempt to manipulate various factors to assess any direct causation.

A description of battering cases is difficult reading. Throughout history, mankind has committed countless heinous acts against innocent victims. Nevertheless, when the victim is so young and helpless and the offenses so repulsive, inhumane and perverted, one is moved to agree with Fontana

(1973, chap. 1) that this is truly "the most deadly sin."

He documents in that chapter numerous cases of brutal murder, sexual exploitation, physical torture, maltreatment, gross and debilitating neglect. From his experiences, common abusive signs include numerous broken bones, lacerations, bites, injury to the brain and other internal organs, pulled joints and burn marks. Two year old Bettina was found whimpering from malnutrition, with a swollen stomach and covered with lacerations, contusions, puncture wounds, sores, old scars, rope burns and gag marks, her hair falling out. Hers is, unfortunately, not an uncommon case. He explains,

> "The injuries generally result from knocking the child about, beating or whipping it with the nearest object, throwing it around like a pillow - frequently across the room - pulling and twisting an arm or leg, or slamming the child on the floor or against a wall - literally battering it.... Parents bash, lash, beat, flay, stomp, suffocate, strangle, gut-punch, choke with rags or hot pepper, poison, crack heads open, slice, rip, steam, fry, boil, dismember. They use fists, belt buckles, straps, hair brushes, lamp cords, sticks, baseball bats, rulers, shoes and boots, lead or iron pipes, bottles, brick walls, bicycle chains, pokers, knives, scissors, chemicals, lighted cigarettes, boiling water, steaming radiators, and open gas flames." (p. 15)

To most people, these acts by parents sound unbelievable. Yet this dismay is precisely one of the major factors mitigating against the child's protection. For where there is such dismay about acts committed behind the hallowed and closed doors of a family's private home, there is tremendous societal denial at all levels. While Fontana (1973) traces

such acts back through history to early mythology, only recently have we witnessed any substantial public arousal, outcry and response.

As acknowledgement of the problem has become more palatable our worst expectations regarding incidence have been exceeded. Since child battering became recognized among physicians as a syndrome thirty years ago, up to 250,000 children per year have required protective service (Solomon, 1973). Of these, 28% or 70,000 sustain some severe form of mental retardation (Brandwein, 1973). Officially reported deaths directly attributable to abuse now exceed 2,000 annually, though over 60,000 children per year are estimated to be among the most serious abuse cases, including those needing prolonged medical treatment for multiple problems (Education Commission of the States, 1973; Kempe & Helfer, 1972; Martin, 1973). As a specific example, Oldham (1976) reported that a recent survey conducted for other purposes revealed that 50% of all children admitted to Los Angeles County Hospital for severe burns suffered the intentional infliction of those wounds by their parent or guardian.

While these numbers remain only estimates derived from informed, yet crude, deduction and speculation, their magnitude is overwhelmingly impressive given the context of the values espoused by this nation, with its cultural heritage and relative prosperity.

Having described the problem and assessed its incidence, researchers began looking for correlates or variables which occurred more often with cases of abuse than with nonabusive families. Such patterns of correlates have lead to widespread research of potential abuse.

Melnick and Hurley (1969) claim to have dispelled the notion that abusive parents are all hostile and overwhelmed by parental responsibilities. They found abusive parents to be unable to empathize with their children and to be frustrated in their dependency needs. Skinner and Castle (1969) similarly found that in most of their 78 cases, parents had long standing personality problems. They further found that minor bruises and facial trauma often signal the onset of more violent abuse which is avoidable if detected. In this study, 56% of the abused children were not yet one year old and there was a 13:1 chance of later born siblings of an abused child also being abused.

The Day Care Council of New York (1972) noted the intergenerational correlation that many abusive parents were similarly abused as children by their parents. In arriving at the same conclusion, Solomon (1973) also noted a high frequency of unwanted pregnancies. He also found most children he surveyed were under four years old. In matching parents of 130 abused children with randomly selected nonabusing parents, Lauer (1974) found a majority of abused children

were under two and most parents were younger and more transient than matched controls. Flanagan, Lamott and Saunders (1976), in studying abuse within the military community also speculated that frequent moves increase the probability of abuse within families. In studying 653 children of mentally ill patients between 1959 and 1967, Rice (1973) found that over 50% of the children were abused or severely mistreated and 25% suffered severe learning problems in later school years.

Research on incidence, correlation and case studies has progressed now to the point where we are gaining a clear image of abuse and its etiology. Kempe and Helfer (1972) have defined an abused child as one who has incurred nonaccidental or intentional physical injury as a result of acts or omissions by the parent which violate local community standards concerning the treatment of children. They thus focus on the outcome of the injury, exclude accidental injury and incorporate cultural labels, limitations and social judgments (Parke & Collmer, 1975).

Gil (1970) excludes the cultural factor but adds that the parent must intend to hurt, injure or destroy the child at that moment. Neglect is a more ambiguous term to define. A relatively acceptable definition, which conforms to most legal criteria, is offered by Polansky, Hally and Polansky (1975):

> "Child neglect may be defined as a condition in which a caretaker responsible for the child either deliberately or by extraordinary inattentiveness permits the child to experience avoidable present suffering and/or fails to provide one or more of the ingredients generally deemed essential for developing a person's physical, intellectual and emotional capacities." (p. 5)

In addressing the development or etiology of abuse, Kempe and Helfer (1972) and Helfer (1973) have defined and discussed three requisites related to these definitions which usually occur in sequence: the potential for abuse or neglect, a special kind of child, and a crisis or series of crises.

The parents' potential for abuse or neglect has four components. First, as stated above, a major factor derives from the way the parents were treated and raised as children. These patterns have a high probability of cyclical repetition, probably due to a large learned or modeling component, unless the parent receives help. Analysts, behaviorists, sociologists all posit different explanations, yet all agree on this undeniable, observed occurrence. Thus any treatment program should address the rearing of the parents.

Second, the propensity and ability of the parents to turn to and benefit from other people in times of stress has tremendous impact on how they will endure and cope with stress. When the extended family is distant or unsupportive, groups like Parents Anonymous offer help. Yet most abusive

parents find it difficult to use any such resources. They are afraid, overwhelmed, have a very low self-esteem, do not know how to ask for help, lack trust, many have no phone.

A third, important factor in the parents' potential for abuse is the marital relationship. Abuse is a family affair. Usually one parent commits the act, but the spouse clearly permits it to happen, over and over again. A primary force in alleviating a potentially abusive situation is the ability of each parent to detect when the spouse is losing self-control with the child and then to step in, in a helpful, supportive and preventive manner. Parenthetically, it has been noted repeatedly that attempts to ascertain which parent actually committed the act are counterproductive and a tempting pitfall (Flanagan et al., 1976; Helfer & Kempe, 1968). Both partners are involved and both partners need the help. Paulson (1976) further differentiates between the active abuser and the passive abuser, the latter being the parent who permits the act to occur without intervention. His point is also that both are involved. This position finds theoretical and research support from Bandura's study (1965) which concluded that when an act is committed by one person and witnessed by a peer, a lack of response from the peer due to noninvolvement, apathy or withdrawal functions to positively reinforce the act; i.e., increase the probability of a recurrence of the act.

The fourth and final component of the potential for abuse is how the parents see the child. Abusive parents usually have unrealistic expectations of their child. They expect the child to fulfill their own unmet needs. They expect the child to "parent" and comfort them when they are upset. When their baby is born these parents are often surprised how much is demanded of them and how little the baby does for them. Simple education and clarification of normal infant and preschool behavior can help adjust these expectations.

Kempe and Helfer differ in their findings on the role of the child, compared to other researchers already noted. The findings of Kempe and Helfer consistently point to the existence of one very special kind of child in the abusing family who is seen as different in some way. This special child is the second of their three major prerequisites for actual abuse. They found few cases where abuse was directed randomly at various children within a family. The one special child may or may not really be different. He may be more oppositional, prone to illness, hyperactive, less alert to social cues, have some birth defect, not sleep well, have colic or teething problems, or merely be perceived as different. Some parents describe the child as "always asking for it" or "always bugging them."

The third prerequisite which often becomes the exclusive focus of some treatment programs is the crisis. According to Kempe and Helfer, alleviating the immediate crisis adds some stability but helps the child and parents minimally. Smothering this one problem with attention leaves smoldering sparks ready to ignite at the least provocation. Crisis then is only a precipitating factor for a family hovering on the brink. Only when all three prerequisites exist simultaneously will the child be badly beaten or neglected.

Such a formulation leads to promising avenues for prediction of high risk families. With dissemination of this information every component of the community can be alerted: mental health programs, agencies, schools, nurseries, neighbors, families, churches, coworkers, friends and so on. Such a program is being developed in Seattle by Disbrow (1976) through the University of Washington School of Nursing Child Abuse Prediction Project.

Similarly, treatment programs should be structured to incorporate each of these aspects. In dealing with abuse and neglect we are dealing with aggression, with parents who do not know how to rear children without violence, who are unable to seek and make use of any type of formal or informal help, who are unable to help eachother cope, who have unrealistic expectations of their children, who have experienced their child as very different, unfulfilling and demanding, and who are overwhelmed by crisis and stress.

As evidenced by the theory and research on normal social development and all of the above research on abuse and neglect, a comprehensive, effective, remedial treatment program must include a specialized, therapeutic setting for the young child. These young children have experienced highly deviant and stressful social experiences. Home life for them, and therefore their world, is perceived as aversive, painful, erratic and unstable. They have no basis on which to develop a sense that they will be treated with trust, justice, caring and love, nor on which to generalize these attitudes toward others. Changing the home environment is essential, but if the well being of the child is our primary concern and motivating force, then we must directly aid that child in adjusting his expectations and relearning what life in this world is all about.

Education as a Change Agent

Educational settings have long been recognized for their potential not only to impart cognitive knowledge, but also for their inherent potential to socialize children. In such a setting, children acquire individual and group skills and roles, self-awareness, self-pride, sharing and mutual respect for eachother's property, ideas, physical being and feelings. Such were some of the considerations behind Froebel's founding the German kindergarten program a century ago (Bigge, 1976).

The recent growth and expansion of programs and research on preschool education, e.g., nursery schools, Montessori schools, day care, Headstart, Goodstart, compensatory education and so on, attest to the potential for learning in all domains which our nation is just discovering can occur at this young age. While some of the goals and evaluations of these programs have been somewhat ambiguous, they are, nevertheless, still quite common in urban and suburban settings.

Caldwell, Wright, Honig and Tannenbaum (1970) found that while infants enrolled in day care centers differed minimally from those reared at home on many measures, the developmental quotients of the former group increased while those of the latter group decreased. Gray and Klaus (1970) found day care fostered better development of an attitude and aptitude conducive to later school success and achievement. Similarly, Robinson and Robinson (1971) found children enrolled in a comprehensive day care program performed better on all developmental measures than those reared at home, especially at a stage when language begins developing.

While most preschool education programs are structured satisfactorily and responsibly, many often encounter children whose needs and demands exceed the capacities and tolerances of the staffs. Dissemination to preschool teachers of early detection and screening measurements (e.g., Bower & Lambert,

1961), have facilitated early intervention with some children having such needs or learning problems.

Behaviorists particularly have formulated numerous techniques and strategies for intervening with very specific, targeted problem behaviors and syndromes. Much of the work of Patterson and Becker for parents of preschoolers is applicable to nursery school settings as well (Patterson, 1971; Patterson & Brodsky, 1966; Patterson & Gullion, 1968; Becker, 1971). In addition, Worell and Nelson (1974) and Blackham and Silberman (1975) have approached school problems specifically with a similar approach.

One point made by each author is that their techniques are expeditious and effective in dealing only with narrowly and clearly defined problem behaviors. Further, when integrated and sequenced properly, such an approach can produce more extensive changes in behavior patterns, attitudes and expectations.

In a similar manner, this paper is an attempt to alter the style in which abused preschoolers relate, play and interact with peers and adult teachers. A study comparable to the above has been derived by combining an ABAB design with Strain's behavioral recording measure (Shores, Hester & Strain, 1976; Strain, 1975; Strain & Kerr, 1975; Strain et al., in press; Strain, Shores & Kerr, 1976; Strain & Timm, 1974; Strain & Wiegerink, 1975).

Tuckman (1972) discusses coding systems similar to Strain's as a valuable technique to record the occurrence of specific, preselected behaviors in an ongoing manner, in an attempt to quantify behavior. He adds that they are more reliable and realistic than retrospective rating scales in that they more closely approximate the physical scientist's "hard data" as an objective, immediate record of events. While he points out the weakness of utilizing undeveloped recording systems and the disadvantage of having to train raters until they have a high interrater reliability, these were not problems in this study, since the system was established and developed and the raters were available.

Browning and Stover (1971) have also written a comprehensive and detailed text on these research techniques. The techniques used here are consistent with their formulations of using one independent variable, one subject and an ABAB design. Through replication of both baseline and intervention behaviors, this research structure clearly demonstrates control of one focal treatment condition, i.e., the treatment variable is responsible for any alteration of the target behavior.

Summary

With this research approach, the efficiency and effectiveness of one teaching technique with which all teachers are familiar is clearly established. While this technique

of positive social approval has been traditionally recognized as effective, its application to children who have been severely abused and neglected has not been analyzed.

In fact, little has been done within the education profession to deal with these children (Kline & Hopper, 1975). The closest educators have come to date is to suffer the chastisement of others for not sufficiently aiding in the identification of these children (Gil, 1969; Martin, 1973). Particularly in the field of special education, there is a high probability of encountering these children (Kline & Christiansen, 1975).

One significant school behavior pattern which influences a child's success in school is his style of interacting socially with peers. The thrust of this project is to develop social skills sufficient to permit the child to function at a cooperative play style level prior to his entrance into first grade.

The trends in this field are increasingly apparent. Abuse and neglect are long standing problems in this nation's culture, yet only recently has the pervasiveness of these problems been discerned. While numerous professions have been attempting to support, cope with and treat these families, educators have not. Educators have worked with other handicapping conditions and with normal children in an impressive fashion. Nevertheless, like most of the rest

of our society, the tremendous potential in schools for identification, intervention and prevention has been ignored and denied. This research represents a small step toward the realization of that potential.

CHAPTER III: Methodology

Description

An ABAB-withdrawal of treatment design with one subject serving as his own control was employed. An AB design was later used with a second subject to assess the generalizability of treatment effects. Within this design, data were recorded on the primary subject by two raters (Baseline I), followed by the treatment (Intervention I), a reversal to earlier conditions (Baseline II) and concluded with a reinstatement of the treatment conditions (Intervention II). Data were recorded on the second subject by the same two raters (Baseline), followed by the same treatment (Intervention). Thus any changes in the primary subject's behavior patterns which resulted from the first treatment period were expected to be altered in the second baseline period, when the intervention technique was withdrawn. Any changes in behavior patterns which appeared in the first intervention period would have been replicated in the second intervention. Similar results were predicted for the second subject.

Setting

The subjects were selected from a population of 12 abused and/or neglected preschoolers enrolled at the Rose School Family Center. The center is a model special education facility working with families where parents are not coping adequately with the stresses associated with raising young

children. The center is supported by several private research grants. All parents were involved in a working relationship with a psychiatric social worker. All children attended a five day a week nursery school program from 9 a.m. to 3 p.m. which was operated by three special education teachers with the help of volunteer aids.

Children in the class ranged in age from 2½ to 5 years. Most of the families were referred by a District of Columbia court or Child Protective Services for documented or suspected abuse or neglect. As a result of extensive publicity, a few families also entered the program as self referrals. Because the behavioral measurement system is most suitable for a free play structure with several children and many toys, the study took place each day during the morning free play time or afternoon free play time.

Subjects

Subject selection criteria were threefold. First, the children considered must have attended the program at least two months. Second, they must have been referred with documented abuse or neglect. Third, they must have demonstrated inappropriate and atypical social behaviors toward peers, as judged by the teaching staff. From the eight children who met these criteria at the time of the study, two were selected randomly by drawing names from a hat. The first one selected became the primary subject. He was a four year old

boy who was subjected repeatedly to physical abuse by his father and emotional abuse and neglect by both parents. Six months ago the child was separated from these parents and is now living with a caring, supportive, attentive family.

In spite of this he persisted in having great difficulty relating positively to peers while at school. Records kept by the teaching staff described him as an explosive child who could not cope with waiting, limits, frustrations or failure. When faced with any of these problems he lost control and screamed, kicked, spat, punched, threw objects, turned over furniture, pushed children and ran away. He had severe temper tantrums. He also had great difficulty interacting with peers except in a grouchy, angry, bossy tone of voice. This frequently elicited hostile peer responses toward him.

He was generally oppositional to all suggestions from teachers and peers. He rarely shared toys either at his own initiative or in response to appropriate peer requests. He would shout "NO!" and shove the child away.

Teachers described his behavior as very immature, a negative group leader who demonstrated minimal impulse control. They further assessed the degree of all of these problems as "major" and "one of the most disruptive children in the class." The problems encountered occurred throughout the day with a cumulative effect until he had to be removed

from the classroom. He had been withdrawn from two nursery programs earlier for such behavior problems. Measurement of all of these behaviors was possible with the observation procedures used in this study.

The secondary subject was a 5½ year old boy. He is a muscular, large, aggressive child. His father "playfully wrestled" with him often, leaving scars, abrasions and sores. Numerous tensions between the parents were released on this child physically, sexually and psychologically over the years. The family recently moved from Chicago where the father was unemployed for over a year. From birth there is a history of babysitters who often were found later to have been quite harsh, punitive, abusive and frightening to him.

Upon the family's arrival in the area, the subject was enrolled in a public school kindergarten. His referral to the Family Center followed a series of incidents involving this child which were beyond the control of the school staff. He had numerous fights with teachers and peers, many of which resulted in injury. He used excessive and abusive profanity so frequently that nearly every hour his provocation and anger disrupted activities. In general, he exhibited a total lack of self control.

After a brief honeymoon period in the Family Center, the same provocative, angry, uncontrollable aggression was observed. When the subject was relaxed and calm he demonstrated

normal cognitive abilities and focused on tasks with pleasure and often with a shy, smiling face. He had normal language skills but spoke little when in control. However, at the slightest interruption or frustration, he became tense and precipitated violent encounters with anyone nearby. He seemed depressed, frightened and unable to control himself, although he often tried very hard to do so.

He generally insisted on bossing everyone and everything, denied he needed any help from anyone ever, was highly distractible and very anxious. He often seemed extremely fearful of losing control and pretended in play to be on fire or to be a time bomb. He was obviously very vulnerable and limited in any normal social setting.

Observation Procedures

Behavioral researchers have generated numerous systems and techniques for measuring behavior. The system used here has been employed frequently by Strain and his colleagues (Shores et al., 1976; Strain, 1975; Strain & Kerr, 1975; Strain et al., in press; Strain et al., 1976; Strain & Timm, 1974; Strain & Wiegerink, 1975).

This system employs two trained raters who record a specified child's social behavior according to the definitions in chapter I and using the symbols presented below. The raters mark coded symbols on a prepared record sheet (Appendix A), recording continuously in 10-second intervals

for a 12-minute period. Following each session data were tabulated and posted by frequency. Frequency data were preferred to percentage data since all time block periods were of the same duration.

The system is most appropriate for a free play activity with several children together. Coded symbols indicate (a) whether the behavior was motor-gestural or vocal-verbal, (b) who emitted the behavior, subject (S), peer (P), or teacher (T), (c) whether the recorded behavior was positive (+) or negative (-) in topography, and (d) whether the behavior was initiated or responded, noted by placing the + or - symbol before the emittor symbol (initiated) or after the emittor symbol (responded). Contingent teacher approval events were recorded by placing a circle around the T. Each behavior may have a motor-gestural, vocal-verbal, initiated, responded and/or ignoring component. When a given behavior had several components it was still recorded as one behavior. An initiated social behavior which received no response from the other party within 3 seconds was recorded by a diagonal slash (/) through the symbol for that party. Such behaviors were tabulated as negative, ignoring behaviors. If no social behavior was observed during a 10-second interval the only entry was a slash.

The two raters were community volunteers who had worked extensively with children, nurseries, schools and similar

community programs. They were trained in the setting for 10 hours, using seminar discussions, several trial runs on video tape, plus live recording sessions in the nursery. Included in the training were techniques of unobtrusive measurement of behavior. Training proceeded until each of the two raters and the experimenter obtained a reliability of 80% or better in three consecutive sessions. Daily interrater reliability checks were tabulated by dividing the total number of symbols recorded in agreement by that number plus those recorded in disagreement. The range and mean are reported below. Slashes representing a lack of interaction during an interval were not tabulated.

Procedure

Qualifications of the Teacher

One crucial factor in this type of design is the intervening teacher who will administer the reinforcement during the three treatment phases (Intervention I and Intervention II for the primary subject and Intervention for the secondary subject). This teacher trained and worked extensively with emotionally disturbed and socially handicapped preschoolers employing behavior modification techniques similar to those employed in this study and was trained by Strain in the use of this observation measurement system. He had an M.Ed. in Special Education/Emotional Disturbance and had worked in the setting for one year.

Instructions to Teachers

Although there were three teachers in the setting, only one acted as intervening agent, or intervening teacher. The intervening teacher administered the reinforcement during the three intervention phases. During those periods he was instructed to minimize interacting with any other child or adult, to remain less than 5m away from the subject and to reinforce all positive, appropriate, prosocial behaviors emitted by the subject toward a peer. Reinforcement consisted of the composite of social reinforcers described in chapter I. At all other times he was instructed to relate to the children in his usual manner.

All other teachers and aids were requested to continue to interact and respond as they normally do. However, during the two intervention phases, they were further instructed to avoid interacting with the intervening teacher, the subject child or any other child within a .9m radius of the subject child or any other child beyond that distance who was interacting with the subject.

Intervention Treatment

The major purpose of this study was to evaluate the impact of adult, social reinforcement on prosocial behaviors of an abused or neglected young child. Based upon Strain's research (Strain et al., in press), adult response patterns often tend to be somewhat inconsistent among staff and over

time, and they are often ignored by abused children. Therefore it was hoped that more potent, consistent and continuous reinforcement by the intervening teacher would elicit the acquisition by the target child of a new learned, social response pattern. This intervention was administered as defined in chapter I.

The primary research design consisted of four phases. (1) Baseline I (A) data were collected for nine sessions without any unusual or conscientiously different teaching techniques or intervention procedures. (2) Intervention I (B) followed for six sessions with the intervening teacher altering his behavior as described earlier. (3) Baseline II (A) data were collected for 11 sessions. (4) Intervention II (B) data were collected for 11 sessions also. A session in which the child was restricted in any way from free social interaction was not counted.

The generalization design consisted of two phases. (1) Baseline data were collected for 11 sessions again, without any unusual or conscientiously different teacher interventions. (2) Intervention followed for 13 sessions with the intervening teacher altering his behavior according to the planned treatment.

Statistical Analyses

The following three hypotheses were tested in this research.

Hypothesis I

There is a significant increase in appropriate, prosocial, interactive behavior displayed by an abused and/or neglected preschooler toward a peer with a similar background or a teacher when such behavior is contingently reinforced, socially and positively by a teacher.

Hypothesis II

There is a significant decrease in inappropriate, anti-social, isolate behavior displayed by an abused and/or neglected preschooler when appropriate, prosocial, interactive behavior by such a child toward a peer with a similar background or a teacher is contingently reinforced, positively and socially by a teacher.

Hypothesis III

There is a significant increase in appropriate, prosocial, interactive behavior displayed by abused and/or neglected preschoolers toward a single subject peer with a similar background, when only that subject peer is reinforced, socially and positively by a teacher for appropriate, prosocial, interactive behavior.

Analysis

In testing these hypotheses, data from the score sheets were tabulated within categories, averaged between the two raters and plotted by frequency, on a daily basis. Where there was no overlap between conditions, e.g., the lowest

treatment score exceeded the highest baseline score, then the difference in behavior is apparent and the data were not submitted to statistical analysis (Sidman, 1960). Where there was any overlap, the difference was assessed by the Mann-Whitney U test (Siegel, 1956). A level of significance at $p<.05$ was used.

Analysis of subject response data was expected to reveal a significant increase in the overall frequency of the subject's positive social behaviors between Baseline I and Intervention I, with a replication of these behavior levels during the final two periods. Further significant findings were anticipated in terms of reduced negative, antisocial, isolate and hyperaggressive behaviors displayed by the child during intervention as opposed to baseline periods.

Peer interaction data were analyzed similarly and were expected to yield a significant increase in prosocial behaviors directed toward the subject child during intervention as opposed to baseline conditions. This was expected because it was hypothesized that the subject would be responding in an increasingly positive manner toward the peers.

Ethical Considerations

As a part of intake processing, all families at the center are provided a full description of the various components of the program with which they might come in contact, directly or indirectly. One component of the

program involves published research such as this study. All parents have signed informed consent forms granting permission to the staff to render treatment and conduct such research.

In this particular study no client was exposed to any aversive, deceptive, harmful or unethical experience of any kind. The only variables which were being manipulated were the various positive, helpful, accepted standard preschool teaching techniques and the consistency and potency with which they were employed in the classroom. Further, the research project was terminated under positive, intervention conditions which should facilitate maintenance and generalization of any acquired, positive behaviors which resulted from the study.

CHAPTER IV: Results and Discussion

Observer Reliability

Table 1 presents the range and mean percentage of agreement between the two raters during recording sessions with both the primary and secondary subjects. Their performance is clearly sufficient to render credibility to the following findings.

TABLE 1

Range and Mean Percentage of Observer Agreement for Each Behavior Reported

Behaviors	Range of Agreement Percentage	Mean Agreement Percentage
Primary Subject		
Subject		
Positive	83 - 100	97.8
Negative	83 - 100	96.9
Peer	80 - 100	93.5
Secondary Subject		
Subject		
Positive	95 - 100	99.0
Negative	83 - 100	98.3
Peer	91 - 100	98.5

Primary Subject Data

Positive Subject Behavior

Data on all positive, prosocial behavior by the primary subject are presented in Figure 1 as solid data points. Each data point represents behavior with motor-gestural, vocal-verbal, initiated and/or responded components.

Baseline I. Baseline conditions reveal a very low rate of positive behavior of any topography. Frequency of positive behavior emitted by the subject during the nine 12-minute sessions ranged from 2 to 13, with a mean of 6.8 positive behaviors per session. Staff members generally agreed that this behavior pattern was typical for the subject.

Intervention I. The initiation of contingent teacher reinforcement procedures during the six session Intervention I conditions greatly accelerated the subject's frequency of positive social interactions. The subject's positive behaviors increased to a range of 24 to 55 with a mean of 38.8 responses per session. Due to scheduling difficulties with the intervening teacher and concern that the subject was rapidly approaching a maintenance level of the new behavior pattern, intervention was terminated after six sessions.

Baseline II. The termination of reinforcement procedures during Baseline II resulted in an immediate deceleration of target behaviors. Figure 1 shows that positive subject

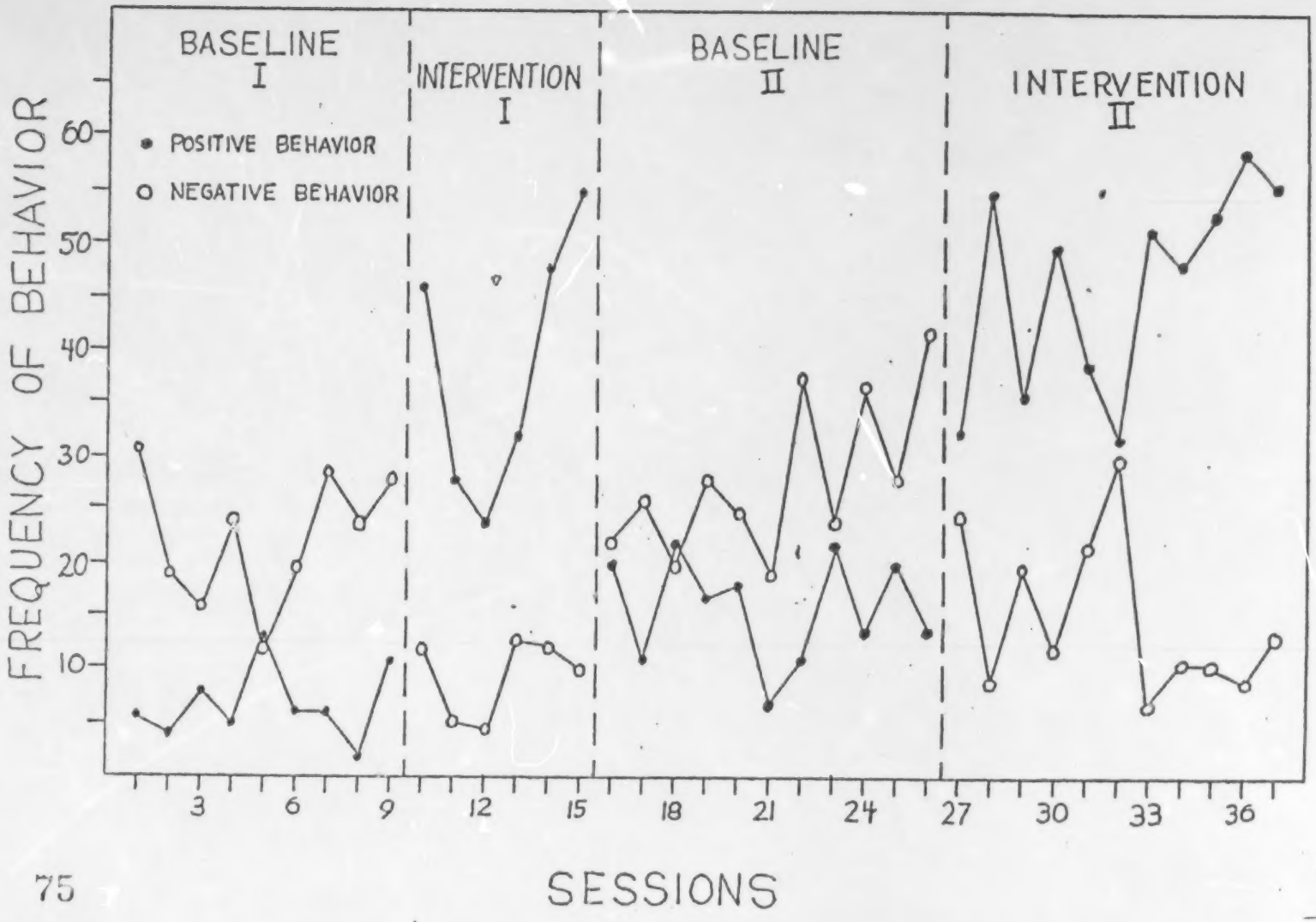

FIGURE 1. Frequency of primary subject's positive and negative behavior

behavior decreased significantly when compared to the previous Intervention I phase. However, this decrease fell short of exact replication of Baseline I levels. One explanation is that the subject had already learned the new behavior pattern too well to revert fully. During Baseline II the subject's positive behavior ranged from 7 to 22, with a mean of 16.0 responses.

Intervention II. Figure 1 indicates that after reinforcement conditions were reinstated for several sessions, the subject's positive behavior dramatically increased to a level higher than the level observed during Intervention I. However, it should be recalled that Intervention I was terminated prematurely because the subject's positive behavior was increasing rapidly and perhaps permanently. During Intervention II the subject's positive behaviors ranged from 32 to 59 with a mean of 46.7 responses per session. Data in Intervention II did not differ in a statistically significant manner from data in Intervention I.

As the formal data collection period concluded, teacher reinforcements were faded over the final four sessions from a maximum of 22 to 7 at the last session. Further, other teachers in the setting were thereafter assisted in employing the treatment procedures with satisfactory results through a transition period of generalization. Since there was no overlap in data points, statistical significance is apparent.

Negative Subject Behavior

Figure 1 presents the frequency of the subject's negative behavior patterns across all experimental conditions, as open data points. Negative behavior includes all motor-gestural, vocal-verbal, initiated, responded and/or ignoring behavioral components. However, as throughout this study, only one subject behavior is recorded and tabulated in each 10-second interval, although that data point might include several of the above components.

Baseline I. Initial data revealed a rate of negative behavior by the subject more than triple his level of positive behavior. His range in this stage was 12 to 31, with a mean of 22.6 negative behaviors per session.

Intervention I. With institution of teacher praise contingent upon positive social behavior and no intended, overt alteration in the intervening teacher's style of responding to negative behaviors, these negative behaviors diminished to a mean of 9.3 per session, with a range of 4 to 13 across the six session Intervention I conditions.

Baseline II. Reversion to baseline conditions resulted in an immediate escalation of the subject's negative behavior pattern, with a mean of 28.1 and a range of 19 to 42.

Intervention II. Replication of treatment conditions is revealed on Figure 1 to have diminished the level of negative behavior. The range in Intervention II was 7 to 30, and the

mean was 15.4 negative behaviors per session. Data in this stage were erratic, though still low, until it stabilized at approximately 10 negative behaviors in a 12-minute session, a rate which remained stable through the post-treatment transition phase.

Since there was overlap between the negative behavior data points in baseline phases and treatment phases, a Mann-Whitney U procedure was conducted and revealed a significant difference between baseline and intervention groups of data ($U = 42$; $n = 17,20$; critical $U = 70$; $p<.002$).

Peer Behavior Patterns

Spillover effects from the above results were predicted to impact on the positive behavior of interacting peers. Table 2 displays peer behavior across all experimental conditions. Peer positive behavior with the subject clearly increased from Baseline I conditions to Intervention I conditions. While the data reveal a substantial drop in positive peer behavior between Intervention I and Baseline II, the previous increase was replicated when the subject experienced the treatment reinforcement during Intervention II. These results were significant at a level of $p<.002$, using a Mann-Whitney U procedure ($U = 18$; $n = 17,20$; critical $U = 70$). Negative behavior appeared uneffected by the treatment and varied with no significance at all.

TABLE 2

Peer Behavior Toward Primary Subject Across Conditions

Behavior	Baseline Phase I	Treatment Phase I	Baseline Phase II	Treatment Phase II	p
Positive					<.002
Range	0 - 4	13 - 35	4 - 22	9 - 38	
Mean	1.7	22.2	11.6	27.8	
Negative					n.s.
Range	0 - 12	2 - 30	9 - 23	2 - 19	
Mean	5.4	11.8	14.2	9.5	
Total					<.002
Range	1 - 15	18 - 49	18 - 37	25 - 47	
Mean	7.1	34.0	25.8	37.3	

Given the significant fluctuations in positive peer behavior and the stability of negative peer behavior, the total frequency of peer behavior was observed to vary significantly as well, with low levels during baseline conditions which increased during intervention. A Mann-Whitney U procedure yielded a U = 38; n = 17,20; critical U = 70; $p<.002$.

Other Findings

As mentioned above, the treatment had an immediate effect on the subject's positive social behavior pattern. All behavior levels which shifted significantly changed in directions consistent with the hypotheses. Table 3 presents the range and mean of reinforcements administered by the teacher.

TABLE 3

Teacher Reinforcements Administered to Primary Subject in Interventions

	Intervention I	Intervention II
Range	14 - 40	9 - 22
Mean	23.0	15.2

Reinforcements during the first treatment phase were potent enough to effect a major change in only six sessions. Further, the data appear to indicate that these reinforcements might have resulted in some permanent social change. Both replication phases, Baseline II and Intervention II, produced levels of behavior which were quantitatively different from those levels in the first two phases. For example, positive subject behavior in both replication phases exceeded that in the respective initial phases.

These results were obtained with a lower level of contingent reinforcement during Intervention II than during Intervention I. This aspect of the data also attests to the potency of the treatment with these children. Once established, the results improved with fewer contingent reinforcements. Raw data are provided at Appendix C.

Analysis of the nonreinforcing behaviors of the intervening teacher and of all positive and negative behaviors across motor-gestural, vocal-verbal, initiating and responding dimensions revealed no differences or patterns within or across conditions.

Secondary Subject Data

Positive Subject Behavior

Data on all positive, prosocial behavior by the secondary subject are presented in Figure 2 as solid data points. As before, each data point represents social behavior with motor-gestural, vocal-verbal, initiated and/or responded components.

Baseline. Baseline conditions reveal a fairly stable rate of positive behavior. Frequency of positive behavior emitted by the subject during the 11 sessions ranged from 15 to 38, with a mean of 24.3 positive behaviors per 12-minute session.

Intervention. Contingent teacher reinforcement during the 13 intervention sessions immediately resulted in a stable,

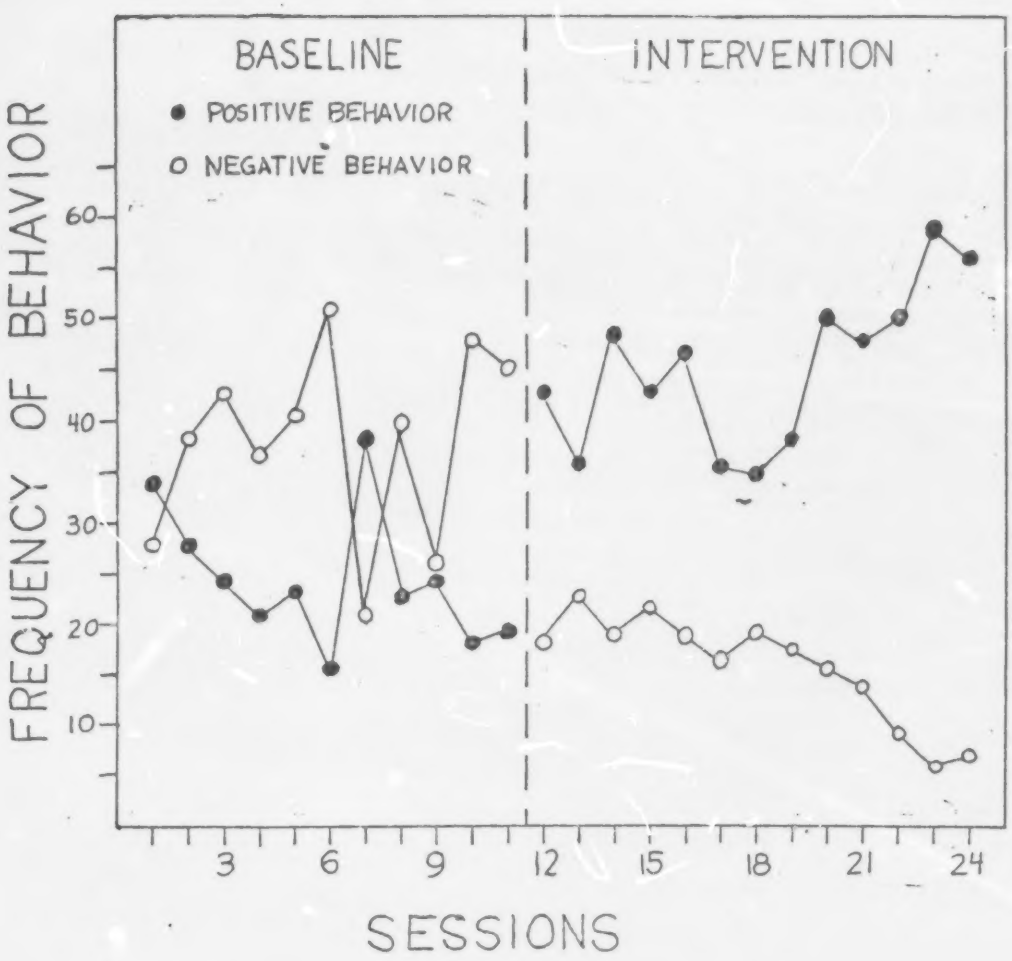

FIGURE 2. Frequency of secondary subject's positive and negative behavior

high level of positive social interactions. This shift appeared to accelerate in later sessions. The secondary subject's positive behaviors increased to a range of 35 to 59, with a mean of 45.4 positive behaviors per session.

The increase is both visibly and statistically significant. Using a Mann-Whitney U procedure the results are significant at a level of $p < .002$ ($U = 4$; $n = 11,13$; critical $U = 20$).

Negative Subject Behavior

Data on all negative social behavior by the secondary subject is presented in Figure 2. The frequency of negative behaviors in each session is represented by open data points.

Baseline. The subject displayed a very high rate of negative social behavior during the 11 baseline sessions. Teachers later judged his behavior during this period as quite typical in every way of his "normal" classroom behavior. Negative behaviors ranged from 21 to 51, with a mean of 38.0 negative behaviors per session.

Intervention. The initiation of contingent teacher reinforcement procedures during the 13 intervention sessions resulted in drastic reduction of negative behaviors. These negative behaviors continued to decline over the course of this design phase. These results were obtained without any intentional or overt alteration of the teacher's style of responding to negative behaviors. Negative behavior frequency

ranged from 6 to 23, with a mean of 15.9 negative behaviors per session during the intervention phase with the secondary subject. Since there were few data points which overlapped between the two phases, the results are highly significant at a level of $p < .002$ (Mann-Whitney U = 2; n = 11,13; critical U = 20).

Peer Behavior Patterns

Peer behavior toward the secondary subject are presented in Table 4. Changes in this subject's pattern of social interaction effected peers' reciprocal social behaviors in a manner similar to that observed with the primary subject. Peer positive behavior increased from baseline to intervention conditions, paralleling a similar increase in the subject's positive social behavior. These results were significant at a level of $p < .05$ (Mann-Whitney U = 34; n = 11,13; critical U = 37).

A difference was noted in peer negative behavior with the two subjects. This behavior did not vary for the primary subject. Here the negative peer behavior was reduced by 50% between baseline and intervention sessions. These results were significant at a level of $p < .002$ (Mann-Whitney U = 5; n = 11,13; critical U = 20).

Similarly, whereas total peer behavior increased with the primary subject, total peer behavior was relatively stable for the secondary subject. There was virtually no difference

TABLE 4

Peer Behavior Toward Secondary Subject Across Conditions

Behavior	Baseline	Treatment	p
Positive			<.05
Range	6 - 24	17 - 40	
Mean	15.0	27.0	
Negative			<.002
Range	13 - 30	5 - 15	
Mean	21.2	10.5	
Total			n.s.
Range	23 - 48	24 - 49	
Mean	36.2	37.5	

between the two sets of total peer data from the secondary subject.

Other Findings

Reinforcements administered by the intervening teacher to the secondary subject are presented in Table 5. A slightly higher level of reinforcement resulted with this subject. However, attempts were made during the last three sessions to fade the reinforcements. During the final session only six reinforcements were administered, which might account for

the slight reversal of the trends on positive and negative behavior.

TABLE 5

Reinforcements Administered by the Teacher to Secondary Subject

	Reinforcements
Range	6 - 34
Mean	20.0

After completion of the intervention phase with this subject, all adults in the setting were instructed in the findings and maintenance procedures. Desired behavior patterns for this subject also remained stable during several subsequent spot checks.

Analysis of the nonreinforcing behaviors of the intervening teacher and of all positive and negative behaviors across motor-gestural, vocal-verbal, initiating and responding dimensions revealed no differences or patterns within or across conditions.

Discussion

Data from these subjects indicate that an abused child who acts out aggressively toward others and is generally antisocial, can be taught a more appropriate, functional style of social interaction by use of a simple reinforcement

strategy of social praise. Concern for a socially abusive background which might have altered such a child's future social interactions now seems unwarranted.

If a history of maltreatment has any impact on a child's future grwoth and development, then it may only function to heighten the child's responsiveness to pleasureable, rewarding social interactions. Both of these subjects altered their patterns of interactions completely and promptly in response to the treatment conditions.

When contingent reinforcement was removed, the primary subject reverted, but not fully, to his old, negative, anti-social pattern. Apparently he had already acquired his new behavior pattern with some degree of permanence and had learned to anticipate desired, natural rewards from others in response to his more appropriate, prosocial interactions. Data from both subjects, particularly in the last few sessions, indicate the clarity of this trend. Replication of findings from the primary subject further strengthens the results on both positive and negative social interaction.

Comparing subjects' positive and negative behavior patterns, it appears that while negative behaviors declined they were replaced with an approximately equal number of positive behaviors. Their overall rate of behavior varied little between the two phases. Thus desired results were obtained by merely praising prosocial behaviors without

altering the style of responding to negative behaviors. In the last sessions the changes and trends became more marked and permanent.

The desirable results on peer behavior are particularly noteworthy also, since the only direct change in the peers' environment was the change in the quality of the target child's interactions with them. Further, during free play times in the nursery school the subjects were not confined to one area nor to specified peers. The peers varied considerably, since both subjects interacted frequently with nearly all other children in the class. Thus the indirect effects of the intervening teacher's praise spread throughout the classroom in a highly significant manner. This data constitutes a clear replication of earlier findings with the primary subject, regarding the potency of the spillover effects on peers' social interaction.

When the subjects were continually reinforced for positive behaviors toward any peer, those peers generally responded positively toward the subjects. Likewise, when the subjects were not reinforced, their behavior became predominantly negative toward peers who consequently responded less positively and less often toward the subjects.

The only discrepancy between the two subjects' sets of data were in the frequency of negative peer behavior and total peer behavior toward the two subjects. This discrepancy

is particularly curious since each set of data appears to be internally consistent. This may have been caused by differences in the styles of prosocial interaction of the two subjects.

All raw data for each of the above findings are presented at Appendix C.

CHAPTER V: Summary and Conclusions

The phenomenon of maltreatment, battering, abuse and neglect of young children is not new. However, public awareness of its incidence and impact is a recent development, gaining momentum on a national level in the past decade. With this inertia came the development of professional responses to deal with the problem. Educators are among the last to recognize its uniqueness in etiology, impact, remediation and prognosis with respect to other handicapping conditions.

By any definition, maltreatment occurring between a young, highly impressionable child and an adult is a social phenomenon. We know that it is also a behavior pattern which reoccurs within the same family, usually escalating continually in its severity until it can no longer be concealed. The impact on the child is tremendous, particularly in terms of his social development, i.e., the way he perceives, relates to and interacts with other children and adults.

When such abusive or neglectful acts have been internalized and symbolize reality for the child, his fearful expectations generalize to other settings and other people. At this point, the child is conditioned to distort and over react or respond in a highly deviant, unexpected way toward even normal social interactions.

Like most children, the child is likely to respond to these discrepant, unusual overtures in an unusual manner. Some maltreated children withdraw, others feel threatened and attack, while still others hunger insatiably for such fun, loving and attentive behavior. While these responses have been observed clinically, the actual impact of parental maltreatment on the social growth, development and capacity of young children remains relatively unexplored by researchers of any profession.

In schools, educators have the potential to effect significant changes in their children's behaviors, expectations and formulations of reality. Trying to meet these children's needs by providing an enriched, accepting environment sounds therapeutic, but frequently teachers are confused and overwhelmed by these children's needs and disruptive behavior. We all know that love and care are not enough. Systematically researched, behavioral principles can provide a clear structure and consistency for these children's fragmented and confused world. Failure to consider their application casts the child's fate to the random shifting of the winds, or, at best, to the passing whims and hunches of educators.

This study was designed to test the effectiveness of one of man's oldest, most sought after rewards, social praise. The hypotheses tested are repeated below.

1. There is a significant increase in appropriate, prosocial, interactive behavior displayed by an abused and/or neglected preschooler toward a peer with similar background or a teacher when such behavior is contingently reinforced, socially and positively by a teacher.

2. There is a significant decrease in inappropriate, antisocial, isolate behavior displayed by an abused and/or neglected preschooler when appropriate, prosocial, interactive behavior by such a child toward a peer with similar background or a teacher is contingently reinforced, positively and socially by a teacher.

3. There is a significant increase in appropriate, prosocial, interactive behavior displayed by abused and/or neglected preschoolers toward a single subject peer with a similar background, when only that subject peer is reinforced, socially and positively by a teacher, for appropriate interactive behavior.

Each hypothesis was clearly supported by the data from the two subjects. Baseline conditions provided an assessment of the naturally occurring social interaction pattern between the subjects and their peers. During the intervention sessions the only change made in the setting was the addition of one teacher's consistent, and at times, persistent social praise and approval for each positive, prosocial behavior by the subjects involving a peer.

As predicted, the frequency of the subjects' positive behavior increased, that of their negative behavior decreased, and that of the positive behaviors of the many peers with whom they interacted also increased. These results were replicated across two intervention conditions with the primary subject, to more clearly establish the control of the independent variable on the children's social interactions. Results were then further replicated again with a different subject.

Thus the results clearly demonstrate the effectiveness of this technique for overcoming one component of a handicapping condition which is widespread but often denied its uniqueness. Social praise by a teacher directed at an abused child's appropriate social interactions with similar peers not only fosters normal social growth for the target child, but can improve the quality and quantity of positive social interaction in a whole classroom.

Many of the severe problem behaviors these two children demonstrated before the study have vanished. All problem behaviors have diminished so drastically that, with continued treatment for the remainder of the school year, it is anticipated that the children will be able to enroll in a regular public school class next year, with minimal outpatient followup and visitation.

Several aspects of this problem remain to be investigated further. Research is needed to assess the most effective reinforcement pattern required to achieve some degree of permanence in the changed behavior patterns.

This research design began with a concentrated effort by one intervening teacher. Results were realized almost immediately. There is a valid need, therefore for research to assess a more efficient manner of teacher reinforcement. In other words, it seems that significant results could have been achieved with less effort by the teacher. Further, some fading was possible at the end without loss of desired behaviors. However, baseline levels reveal the need for some minimal level of ongoing reinforcement. Discovery of this critical level will enhance the applicability and utilization of current findings.

The children in this study did not exhibit high frequencies of isolate, withdrawal behaviors, which are common with some maltreated children. Systematic research is needed to determine the causal components which result in some maltreated children withdrawing socially and others behaving aggressively. The technique employed here might be more effective with these children if overt prompting and modeling were added to the treatment procedure. This, however, should be documented.

The variation in peer negative behavior and peer total behavior in the two sets of data warrants investigation. Further research into the individual differences by abused children who are outwardly aggressive and socially active, how they effect peer behavior and how peers respond to them could be productive.

No attempts were made here to employ the technique by parents. The relationship between the abuser and the reinforcer is one worthy of investigation if parents are to learn how to most effectively modify their parenting behaviors. Related investigations into parents' modeling of social and individual, noninteractive behaviors and nonphysical or vocal-verbal behaviors might add clarity to this relationship.

In order for the findings of this study to be applied, they must be used by teachers. In view of the lack of existing researched teaching techniques related to maltreatment, teachers should be surveyed (1) to assess their present understanding of abuse and neglect in terms of its effect on children in school, (2) to determine what techniques they feel are specifically relevant to maltreated children, and (3) what inhibitions they might have in dealing with the deviant behavior of such children.

Teachers likewise need to know more about the capacity and performance of maltreated children with respect to school behaviors involving structured group and individual tasks.

This study focused only on social interaction in a free play setting. Given this limitation, the results seem particularly promising, relevant and applicable to most teachers of maltreated preschoolers.

Results of this study have been submitted for publication in a professional journal.

Appendix A

Rater Score Sheet Form

Date _____

Subject _____

Observer _____

Scoring: S = Subject
T = Teacher
P = Peer

MG = Motor-Gestural
VV = Vocal-Verbal

(example: +S = positive behavior initiated by subject)

MINUTE	BEH.	10	20	30	40	50	60
1	MG						
	VV						
2	MG						
	VV						
3	MG						
	VV						
4	MG						
	VV						
5	MG						
	VV						
6	MG						
	VV						

Appendix B

Pilot Project Data

In July 1976 a "dry run" was made for this project in complete accordance with all procedures presented in this final report with three exceptions. First, at that time an ABA design was envisioned so only three periods were utilized. Replication of treatment effects as well as baseline, together with the addition of a second subject, both strengthened the control and the results. Second, due to closing of the school in August, the study at that point only covered eight days with conditions A, B and A spanning 3, 2 and 3 days respectively. Third, since time blocks of recording varied, data is presented as percentages rather than as frequencies. The child selected enrolled in another program in September 1976.

Data below (Table 4) reveal a clear treatment effect which is consistent with all hypotheses, although the number of data points is insufficient to validate these hypotheses. Overall, the intervention increased positive social behaviors by the subject, decreased his negative behaviors and increased positive peer behavior toward the subject. Isolate behavior which could be school appropriate or inappropriate, but in any case unrelated to social interaction, varied

erratically and was not specifically addressed in this research study, but was viewed as a factor needy of further direct research.

Overall, the pilot project provided an opportunity to clarify the procedures and confirm the productive potential of the study.

Table 6

Pilot Project Data

Phase	Day	--Subject-- %+	%-	%/[a]	Positive Peer Frequency	Teacher Interactions Frequency
Baseline I	1	19	11	70	1	8
	2	43	50	7	23	4
	3	35	26	39	17	8
Intervention	4	67	4	29	28	29
	5	34	9	57	14	7
Baseline II	6	45	3	52	14	5
	7	38	40	22	16	7
	8	37	32	31	8	5

a + = Positive, - = Negative, / = No Behavior

Appendix C

Raw Data

Primary Subject

Phase	Session	Subject +	Subject -	Peer +	Peer -	Peer Total	Teacher Reinforcements
Baseline I	1	6	31	1	0	1	
	2	4	19	1	8	9	
	3	8	16	0	1	1	
	4	5	24	1	4	5	
	5	13	12	1	5	6	
	6	6	20	4	6	10	
	7	6	29	3	12	15	
	8	2	24	0	2	2	
	9	11	28	4	11	15	
Mean		6.8	22.6	1.7	5.4	7.1	
Treatment I	10	46	12	14	30	44	40
	11	28	5	16	2	18	14
	12	24	4	13	6	19	15
	13	32	13	23	7	30	21
	14	48	12	35	9	44	21
	15	55	10	32	17	49	27
Mean		38.8	9.3	22.2	11.8	34.0	23.0
Baseline II	16	20	22	22	15	37	
	17	11	26	9	11	20	
	18	22	20	12	9	21	
	19	17	28	18	9	27	
	20	18	25	16	12	28	
	21	7	19	6	12	18	
	22	11	38	4	22	26	
	23	22	24	9	12	21	
	24	14	37	9	23	32	
	25	20	28	10	16	26	
	26	14	42	13	15	28	
Mean		16.0	28.1	11.6	14.2	25.8	
Intervention II	27	33	25	9	16	25	9
	28	55	9	32	2	34	16
	29	36	20	25	10	35	13
	30	50	12	25	2	27	19
	31	39	22	31	9	40	17
	32	32	30	20	19	39	17
	33	52	7	29	15	44	17
	34	49	11	38	6	44	22
	35	53	11	26	8	34	17
	36	59	9	33	8	41	13
	37	56	13	38	9	47	7
Mean		46.7	15.4	27.8	9.5	37.3	15.2

Secondary Subject

Phase	Session	Subject +	Subject -	Peer +	Peer -	Total	Teacher Reinforcements
Baseline	1	34	28	23	25	48	
	2	28	38	24	20	44	
	3	24	43	10	13	23	
	4	21	37	18	22	40	
	5	23	41	20	22	42	
	6	15	51	12	22	34	
	7	38	21	20	14	34	
	8	23	40	12	16	28	
	9	24	26	8	21	29	
	10	18	48	6	30	36	
	11	19	45	12	28	40	
Mean		24.3	38.0	15.0	21.2	36.2	
Treatment	12	43	18	30	13	43	23
	13	36	23	17	12	29	17
	14	48	19	19	5	24	19
	15	43	22	18	15	33	19
	16	47	19	24	15	39	20
	17	36	17	35	12	47	25
	18	35	19	36	10	46	34
	19	38	18	40	9	49	28
	20	50	16	18	11	29	18
	21	48	14	26	9	35	21
	22	50	9	19	13	32	16
	23	59	6	35	6	41	14
	24	57	7	34	7	41	6
Mean		45.4	15.9	27.0	10.5	37.5	20.0

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erratically and was not specifically addressed in this research study, but was viewed as a factor needy of further direct research.

Overall, the pilot project provided an opportunity to clarify the procedures and confirm the productive potential of the study.

Table 6

Pilot Project Data

Phase	Day	--Subject-- %+	%-	%/[a]	Positive Peer Interactions Frequency	Teacher Interactions Frequency
Baseline I	1	19	11	70	1	8
	2	43	50	7	23	4
	3	35	26	39	17	8
Intervention	4	67	4	29	28	29
	5	34	9	57	14	7
Baseline II	6	45	3	52	14	5
	7	38	40	22	16	7
	8	37	32	31	8	5

a + = Positive, - = Negative, / = No Behavior

Raw Data

Primary Subject

Phase	Session	Subject +	Subject -	Peer +	Peer -	Peer Total	Teacher Reinforcements
Baseline I	1	6	31	1	0	1	
	2	4	19	1	8	9	
	3	8	16	0	1	1	
	4	5	24	1	4	5	
	5	13	12	1	5	6	
	6	6	20	4	6	10	
	7	6	29	3	12	15	
	8	2	24	0	2	2	
	9	11	28	4	11	15	
Mean		6.8	22.6	1.7	5.4	7.1	
Treatment I	10	46	12	14	30	44	40
	11	28	5	16	2	18	14
	12	24	4	13	6	19	15
	13	32	13	23	7	30	21
	14	48	12	35	9	44	21
	15	55	10	32	17	49	27
Mean		38.8	9.3	22.2	11.8	34.0	23.0
Baseline II	16	20	22	22	15	37	
	17	11	26	9	11	20	
	18	22	20	12	9	21	
	19	17	28	18	9	27	
	20	18	25	16	12	28	
	21	7	19	6	12	18	
	22	11	38	4	22	26	
	23	22	24	9	12	21	
	24	14	37	9	23	32	
	25	20	28	10	16	26	
	26	14	42	13	15	28	
Mean		16.0	28.1	11.6	14.2	25.8	
Intervention II	27	33	25	9	16	25	9
	28	55	9	32	2	34	16
	29	36	20	25	10	35	13
	30	50	12	25	2	27	19
	31	39	22	31	9	40	17
	32	32	30	20	19	39	17
	33	52	7	29	15	44	17
	34	49	11	38	6	44	22
	35	53	11	26	8	34	17
	36	59	9	33	8	41	13
	37	56	13	38	9	47	7
Mean		46.7	15.4	27.8	9.5	37.3	15.2

Secondary Subject

Phase	Session	Subject +	Subject -	Peer +	Peer -	Total	Teacher Reinforcements
Baseline	1	34	28	23	25	48	
	2	28	38	24	20	44	
	3	24	43	10	13	23	
	4	21	37	18	22	40	
	5	23	41	20	22	42	
	6	15	51	12	22	34	
	7	38	21	20	14	34	
	8	23	40	12	16	28	
	9	24	26	8	21	29	
	10	18	48	6	30	36	
	11	19	45	12	28	40	
Mean		24.3	38.0	15.0	21.2	36.2	
Treatment	12	43	18	30	13	43	23
	13	36	23	17	12	29	17
	14	48	19	19	5	24	19
	15	43	22	18	15	33	19
	16	47	19	24	15	39	20
	17	36	17	35	12	47	25
	18	35	19	36	10	46	34
	19	38	18	40	9	49	28
	20	50	16	18	11	29	18
	21	48	14	26	9	35	21
	22	50	9	19	13	32	16
	23	59	6	35	6	41	14
	24	57	7	34	7	41	6
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